

APPENDIX 8.13B

# **Phase II Environmental Site Assessment for the Proposed Walnut Energy Center**

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October 29, 2002

ENSR Project No. 08727103-100

Mr. Randy C. Baysinger, P.E.  
Assistant General Manager  
Turlock Irrigation District  
P.O. Box 949  
Turlock, CA 95381

Subject:       **Limited Soil Sampling Results**  
69-Acre Parcel  
600 South Washington Road  
Turlock, California

Dear Mr. Baysinger:

ENSR® Corporation (ENSR) is pleased to provide the Turlock Irrigation District (TID) with this report documenting the results of our limited soil sampling for the 69-acre parcel of land located at 600 South Washington Road in Turlock, California. The work was performed in accordance with ENSR's proposal dated July 23, 2002. The objective of the limited soil sampling was to assess the presence, if any, of residual pesticides and metals.

### **LIMITED SOIL SAMPLING**

On October 18, 2002, ENSR collected 20 discrete soil samples (1 sample per 3.5 acres) across the subject site (**Figure 1**). The soil samples were collected by pushing the brass sample tubes into the soil. Soil samples were collected in pre-cleaned 2-inch by 6-inch brass liners. All sample containers were sealed and delivered under chain-of-custody documentation to McCampbell Analytical Inc. (DHS Certification No. 1644) of Pacheco, California.

The laboratory combined the twenty surface samples into five composite samples (five 4-point composites). At each location, soil samples were collected from approximately 0.5 feet to 1.0 feet below ground surface. The five composite surface soil samples were analyzed for the following constituents:

- Organochlorine Pesticides by Environmental Protection Agency (EPA) Method 8081B; and
- California Assessment Manual (CAM) 17 Metals by EPA Method 6000/7000 series.

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## LABORATORY ANALYTICAL RESULTS

The laboratory analytical results for the composite surface soil samples are presented in **Table 1** and summarized below:

- Organochlorine pesticides were not detected in any soil samples;
- Barium was detected in all five samples at concentrations ranging from 41 to 50 milligrams per kilogram (mg/kg);
- Chromium was detected in all five samples at concentrations ranging from 5.9 to 7.7 mg/kg;
- Cobalt was detected in all five samples at concentrations ranging from 2.8 to 3.5 mg/kg;
- Copper was detected in all five samples at concentrations ranging from 8.0 to 9.0 mg/kg;
- Lead was detected in four samples at concentrations ranging from 3.3 to 4.8 mg/kg;
- Nickel was detected in four samples at concentrations ranging from 3.1 to 4.3 mg/kg;
- Vanadium was detected in all five samples at concentrations ranging from 19 to 22 mg/kg; and
- Zinc was detected in all five samples at concentrations ranging from 27 to 31 mg/kg.

A copy of the laboratory analytical report is included as **Attachment A**.

## CONCLUSIONS/RECOMMENDATIONS

Based on laboratory analytical results, the subject site has not been significantly impacted by past agricultural practices. Several metals, including barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc, were detected at various concentrations throughout the subject site. However, these concentrations are well below their respective USEPA Region 9 Preliminary Remediation Goals (PRG) for industrial soil and therefore, further assessment and/or remediation does not appear to be warranted.



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## LIMITATIONS

The interpretations and/or conclusions contained within this report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. No warranty is implied or intended.

ENSR appreciates the opportunity to provide the Turlock Irrigation District with environmental consulting services. If you have questions regarding this report, please feel free to contact Mark Litzau at (510) 748-6700.

Sincerely,

## ENSR Corporation

A handwritten signature in black ink, appearing to read "Alan Churchill", with a stylized flourish at the end.

Alan Churchill  
Project Geologist

A handwritten signature in black ink, appearing to read "Mark C. Litzau", with a stylized flourish at the end.

Mark C. Litzau  
Senior Program Manager

Attachment A:            Laboratory Analytical Report

TABLE 1  
SOIL ANALYTICAL RESULTS  
69-Acre Parcel  
600 South Washington Road  
Turlock, California

Sample I.D.	Date Collected	Pesticides (ug/kg)	Metals							
			Barium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
SS-20, 19, 10, 9	10/18/02	ND	41	6.0	3.3	8.2	3.3	3.9	21	27
SS-18, 17, 8, 7	10/18/02	ND	42	5.9	2.9	8.0	<3.0	3.1	19	28
SS-16, 15, 6, 5	10/18/02	ND	48	7.7	3.5	8.3	4.8	3.8	22	31
SS-14, 13, 4, 3	10/18/02	ND	46	5.9	2.8	8.6	4.5	<2.0	20	31
SS-12, 11, 2, 1	10/18/02	ND	50	6.7	2.9	9.0	4.1	4.3	21	30
PRGs	---	---	100,000	450	100,000	76,000	1,000	41,000	14,000	100,000

NOTES:

ND - Not Detected At or Above Laboratory Detection Limits

mg/kg - milligrams per kilogram

ug/kg - micrograms per kilogram

PRGs - Preliminary Remediation Goals (USEPA Region 9) for industrial soil.